

**SYSTEM AND METHOD OF DETERMINING A
POLISHING ENDPOINT BY MONITORING SIGNAL INTENSITY**

ABSTRACT OF THE DISCLOSURE

The present invention provides a polishing endpoint detection system, for use with a polishing apparatus, a method of determining a polishing endpoint of a surface located on a semiconductor wafer, and a method of manufacturing an integrated circuit on a semiconductor wafer. In one embodiment, the polishing endpoint detection system includes a carrier head having a polishing platen associated therewith. Also, the detection system includes a signal emitter located adjacent one of the carrier head or polishing platen. The signal emitter is configured to generate an emitted signal capable of traveling through an object to be polished. In addition, the detection system includes a signal receiver located adjacent another of the carrier head or polishing platen. The signal receiver is configured to receive the emitted signal from which a change in a signal intensity of the emitted signal can be determined.